

**"FEE ADDRESS" INDICATION FORM**

To: MAIL STOP: M Fee Correspondence  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Please recognize as the "Fee Address," under the provisions of 37 CFR 1.363, the following address:

CPA GLOBAL NORTH AMERICA LLC  
2318 Mill Road  
12<sup>th</sup> Floor  
Alexandria, VA 22314

Payor Number: 000197

in the following listed application(s) or patent(s) for which the issue fee has been paid.

<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Date</u>	<u>Filing Date</u>	<u>Confirmation No.</u>	<u>Attorney Docket No.</u>
7,786,958 B1	09/666,521	08/31/2010	09/20/2000	6933	SEL 209

Respectfully Submitted,



---

Mark L. Murphy  
Registration No. 34,225  
Date: February 11, 2011

Husch Blackwell LLP  
120 South Riverside Plaza  
Suite 2200  
Chicago, Illinois 60606  
(312) 655-1500

Customer No: 24628



US007786958B1

(12) **United States Patent**  
Koyama

(10) **Patent No.:** US 7,786,958 B1  
(45) **Date of Patent:** Aug. 31, 2010

(54) **EL DISPLAY DEVICE AND ELECTRONIC DEVICE**

(75) Inventor: Jun Koyama, Kanagawa (JP)

(73) Assignee: Semiconductor Energy Laboratory Co., Ltd. (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 19 days.

(21) Appl. No.: 09/666,521

(22) Filed: Sep. 20, 2000

(30) **Foreign Application Priority Data**

Sep. 24, 1999 (JP) 11-271235

(51) **Int. Cl.**  
**G09G 3/30** (2006.01)

(52) **U.S. Cl.** 345/76; 345/83

(58) **Field of Classification Search** 345/45, 345/74.1, 75.1, 76-83; 315/169.1-169.4; 257/72

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,909,788 A 9/1975 Kaelin et al.  
4,954,746 A \* 9/1990 Taniguchi et al. .... 313/506  
5,003,222 A \* 3/1991 Washo .... 313/511  
5,452,019 A 9/1995 Fukuda et al. .... 348/655  
5,587,819 A \* 12/1996 Sunohara et al. .... 349/106  
5,598,021 A 1/1997 O et al.  
5,641,991 A 6/1997 Sakoh  
5,643,826 A 7/1997 Ohtani et al. .... 437/88  
5,652,600 A 7/1997 Khormaei et al.  
5,659,328 A \* 8/1997 Todokoro et al. .... 345/74  
5,721,562 A \* 2/1998 Kawashima et al. .... 345/76  
5,747,928 A \* 5/1998 Shanks et al. .... 313/498  
5,807,627 A 9/1998 Friend et al.  
5,812,105 A 9/1998 Van de Ven  
5,882,761 A 3/1999 Kawami et al.

5,886,474 A \* 3/1999 Asai et al. .... 315/169.1  
5,920,080 A 7/1999 Jones  
5,923,962 A 7/1999 Ohtani et al. .... 438/150  
5,990,629 A \* 11/1999 Yamada et al. .... 315/169.3  
6,043,797 A 3/2000 Clifton et al.  
6,057,647 A 5/2000 Kurokawa et al.  
6,072,450 A \* 6/2000 Yamada et al. .... 345/76  
6,080,031 A \* 6/2000 Rogers et al. .... 445/25  
6,091,381 A 7/2000 Uenuma

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 595 649 A1 5/1994

(Continued)

OTHER PUBLICATIONS

JP 10-039791 English abstract.

(Continued)

*Primary Examiner*—Kimhung Nguyen

(74) *Attorney, Agent, or Firm*—Husch Blackwell Sanders LLP Welsh & Katz

ABSTRACT

(57)

In an EL display device in which color purity of each of red, blue and green is different, the EL display device displaying an image of a desired balance of red, blue and green is provided. A video signal supplied to each EL element is gamma ( $\gamma$ )-corrected by a correction circuit, the color purity of each of blue luminescence, green luminescence, and red luminescence is suitably controlled in accordance with the voltage and current of the corrected video signal.

24 Claims, 9 Drawing Sheets

